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09/745,312	12/21/2000	Sascha Baumeister	DE919990096	2057

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Blanche E. Schiller, Esq.  
HESLIN & ROTHENBERG, P.C.  
5 Columbia Circle  
Albany, NY 12203

EXAMINER

MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 06/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/745,312

Applicant(s)

BAUMEISTER ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DOV POPOVICI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## DETAILED ACTION

### *Remarks*

1. In response to communications filed on 24-March-2003, claims 1 and 13-15 are amended, and new claims 16-17 are added per applicant's request. Therefore, claims 1-17 are pending in the application.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recitations "multiple file formats" recited in claims 1 and 13-15, "different file formats" recited in claim 16, and "unknown file formats" recited in claim 17 introduce subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original

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specification filed on 21-December-2000 does not contain the terms “file format” or any relevant terms describing “file format”. In addition, the applicant makes a reference to “file format types” in page 5 of the response to office action filed on 24-March-2003, pointing to “page 12, line 29 through page 13, line 9” of the original specifications. However, page 12 of the original specification filed on 21-December-2000 ends at line 27. Nonetheless, the paragraph starting at line 15 of page 12 and ending at line 9 of page 13, does not contain “file format types” or any relevant teachings hinting on “file formats”, “different file formats”, and/or “multiple file formats”.

4. Claims 2-12 and 16-17 are rejected under 35 U.S.C. 112, first paragraph, for being dependents from the rejected independent claim 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al (U.S. patent No. 6,006,229) in view of Balabine et al (U.S. patent No. 5,937,406.)

As to claim 1, Schmidt et al teaches a method for managing a file system (see Abstract) comprising:

providing transaction program means (see column 7, lines 46-56) arranged for a cooperation with the file system (see column 8, lines 54-56, where “file system” is read on “Xbase file set”), the transaction program means implementing transactional functionality (see column 6, line 60 through column 7, line 4, where “transactional functionality” is read on “translating Xbase transaction commands into function calls”) to effectuate changes to files of the file system (see column 7, lines 4-33.)

Schmidt et al does not teach a hierarchical file system, wherein the hierarchical file system supports multiple file formats.

Balabine et al teaches a file system interface to a database (see Abstract), in which he teaches a hierarchical file system (see figure 5C, and see column 2, lines 56-62), wherein the hierarchical file system supports multiple file formats (see column 8, lines 3-9.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al to include a hierarchical file system, wherein the hierarchical file system supports multiple file formats.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al by the teaching of Balabine et al, because including a hierarchical file system, would enable applications that rely on a file system as a data repository, or which are otherwise database-unaware (i.e., unable to access data in a database), to access information in a database in a

transparent manner, as explained by Balabine et al (see column 3, lines 44-49); and because wherein the hierarchical file system supports multiple file formats, would allow the file system to access and process various types of files, regardless of the original file format in which they have been stored.

As to claim 2, Schmidt et al as modified teaches wherein the transaction program means implements a commit and/or rollback facility (see Schmidt et al, column 7, lines 49-56.)

As to claim 3, Schmidt et al as modified teaches wherein the transaction program means (see Schmidt et al, column 7, lines 46-56) is arranged for communicating with the file system via a protocol directed to cover changes made to the file system (see Schmidt et al, column 8, lines 5-31.)

As to claim 10, Schmidt et al as modified teaches wherein the transaction program means (see Schmidt et al, column 7, lines 46-56) is implemented in the file system itself (see Schmidt et al, column 8, lines 54-56, where “file system” is read on “Xbase file set”.)

As to claim 11, Schmidt et al as modified teaches wherein the transaction program means (see Schmidt et al, column 7, lines 46-56) processes commands issued by transaction manager means arranged for cooperating with a database management system (see Schmidt et al, column 6, lines 1-4 and lines 60-67.)

As to claim 12, Schmidt et al as modified teaches the method further comprising using transaction program means (see Schmidt et al, column 7, lines 46-56) implemented for a cooperation with the file system (see Schmidt et al, column 8, lines 54-56, where “file system” is read on “Xbase file set”).)

As to claim 13, Schmidt et al teaches a computer system being able to access a file system which is manageable by transaction program means according to a method of managing a file system (see column 1, lines 33-36, and see column 2, lines 26-36) comprising:

providing transaction program means (see column 7, lines 46-56) arranged for a cooperation with the file system (see column 8, lines 54-56, where “file system” is read on “Xbase file set”), the transaction program means implementing transactional functionality (see column 6, line 60 through column 7, line 4, where “transactional functionality” is read on “translating Xbase transaction commands into function calls”) to effectuate changes to files of the file system (see column 7, lines 4-33.)

Schmidt et al does not teach a hierarchical file system, wherein the hierarchical file system supports multiple file formats.

Balabine et al teaches a file system interface to a database (see Abstract), in which he teaches a hierarchical file system, wherein the hierarchical file system supports multiple file formats (applicants are kindly directed to remarks and discussions made for claim 1 above.)

As to claim 14, Schmidt et al teaches a computer program for execution in a data processing system comprising computer program code portions for performing the steps of (see column 5, lines 46-51, where “computer program code portions” is read on “application programs”) providing transaction program means (see column 7, lines 46-56) arranged for a cooperation with a file system (see column 8, lines 54-56, where “file system” is read on “Xbase file set”), the transaction program means implementing transactional functionality (see column 6, line 60 through column 7, line 4, where “transactional functionality” is read on “translating Xbase transaction commands into function calls”) to effectuate changes to files of the file system (see column 7, lines 4-33.)

Schmidt et al does not teach a hierarchical file system, wherein the hierarchical file system supports multiple file formats.

Balabine et al teaches a file system interface to a database (see Abstract), in which he teaches a hierarchical file system, wherein the hierarchical file system supports multiple file formats (applicants are kindly directed to remarks and discussions made for claim 1 above.)

As to claim 15, Schmidt et al teaches a computer program product stored on a computer usable medium comprising computer readable program means for causing a computer to perform the method of managing a file system (see column 9, lines 44-47, where a “computer program product” is read on “client software system on a client computer”, and “causing a computer to perform” is read on “one or more Xbase



application programs”. It is inherent that application programs cause computers to perform”) comprising:

providing transaction program means (see column 7, lines 46-56) arranged for a cooperation with the file system (see column 8, lines 54-56, where “file system” is read on “Xbase file set”), the transaction program means implementing transactional functionality (see column 6, line 60 through column 7, line 4, where “transactional functionality” is read on “translating Xbase transaction commands into function calls”) to effectuate changes to files of the file system (see column 7, lines 4-33.)

Schmidt et al does not teach a hierarchical file system, wherein the hierarchical file system supports multiple file formats.

Balabine et al teaches a file system interface to a database (see Abstract), in which he teaches a hierarchical file system, wherein the hierarchical file system supports multiple file formats (applicants are kindly directed to remarks and discussions made for claim 1 above.)

As to claim 16, Schmidt et al as modified teaches wherein the files have different file formats (see Balabine et al, column 8, lines 3-9.)

As to claim 17, Schmidt et al as modified teaches wherein the transaction program means implements transactional functionality (see Schmidt et al, column 6, line 60 through column 7, line 4, where “transactional functionality” is read on “translating Xbase transaction commands into function calls”) to effectuate changes to files (see Schmidt et al, column 7, lines 4-33) of the hierarchical file system (see Balabine et al,

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figure 5C, and see column 2, lines 56-62) notwithstanding that the files have unknown file formats (see Balabine et al, column 5, lines 26-29.)

7. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al (U.S. patent No. 6,006,229) in view of Balabine et al (U.S. patent No. 5,937,406) as applied to claims 1-3 and 10-17 above, and further in view of Coleman et al (U.S. patent No. 6,032,154.)

As to claim 4, Schmidt et al as modified teaches communications protocols (see Schmidt et al, column 6, lines 33-40.)

Schmidt et al as modified does not teach wherein the protocol is XD SM or is derivable from XD SM, or comprises XD SM-equivalent functions.

Coleman et al teaches a data storage and management system for use with a multiple protocol management system (see Abstract), in which he teaches wherein the protocol is XD SM or is derivable from XD SM, or comprises XD SM-equivalent functions (see column 5, lines 25-41, and see column 7, lines 29-39, where “XD SM protocol” is concluded in “a stack of protocol drivers in accordance with ISO/OSI standards”).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al as modified to include wherein the protocol is XD SM or is derivable from XD SM, or comprises XD SM-equivalent functions.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al as modified, by the teaching

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of Coleman et al, because wherein the protocol is XD SM or is derivable from XD SM, or comprises XD SM-equivalent functions, enables the system to perform transactional functions using protocols designed specifically for the transactional environment, performing with high speed and increased efficiency.

As to claim 5, Schmidt et al as modified teaches the method further comprising using transaction program means (see Schmidt et al, column 7, lines 46-56) implemented for a cooperation with the file system (see Schmidt et al, column 8, lines 54-56, where “file system” is read on “Xbase file set”.)

As to claim 6, Schmidt et al as modified teaches a computer system being able to access a file system which is manageable by transaction program means according to a method of claim 4 (see Schmidt et al, column 1, lines 33-36, and see column 2, lines 26-36.)

As to claim 7, Schmidt et al as modified teaches a computer program for execution in a data processing system comprising computer program code portions for performing the steps of the method of claim 4 (see Schmidt et al, column 5, lines 46-51, where “computer program code portions” is read on “application programs”.)

As to claim 8, Schmidt et al as modified teaches a computer program product stored on a computer usable medium comprising computer readable program means for causing a computer to perform the method of claim 4 (see Schmidt et al, column

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9, lines 44-47, where a “computer program product” is read on “client software system on a client computer”, and “causing a computer to perform” is read on “one or more Xbase application programs”. It is inherent that application programs cause computers to perform”.)

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al (U.S. patent No. 6,006,229) in view of Balabine et al (U.S. patent No. 5,937,406 as applied to claims 1-3 and 10-17 above, and further in view of Khalidi et al (U.S. patent No. 5,561,799.)

As to claim 9, Schmidt et al as modified teaches a transaction program means (see Schmidt et al, Abstract.)

Schmidt et al as modified still does not teach wherein the transaction program means is implemented as a stacked file system.

Khalidi et al teaches an extensible file system (see Abstract), in which he teaches wherein the transaction program means is implemented as a stacked file system (see column 5, line 64 through column 5, line 28.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al as modified to include wherein the transaction program means is implemented as a stacked file system.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Schmidt et al as modified, by the teaching of Khalidi et al, because wherein the transaction program means is implemented as a

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stacked file system, enables the users to extend the file system and its functionality, as well as ease of access to the files and the movement of such files within the data storage device.

***Response to Arguments***

9. Applicant's arguments filed on 24-march-2003 with respect to the cited references have been fully considered but they are either not found to be persuasive, or are moot in view of new grounds of rejection:

In response to applicants' arguments made on claims 1-3 and 10-15 on the Schmidt et al reference, the arguments have been fully considered but they are moot in view of new grounds of rejection.

In response to applicants' argument that Coleman et al "provides no motivation for using the XDSM protocol for communications between a transaction program means and a hierarchical file system as recited in claim 4", the argument has been fully considered but it is not found to be persuasive, because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992.)

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to methods and systems of managing resources in the transaction management environments, and hierarchical file systems and databases in general:

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Patent No.	Issued to	Cited for teaching
US 6,549,918	Probert, Jr. et al.	File format conversions.
US 6,549,916	Sedlar	File management techniques and file formats.
US 6,356,920	Vandersluis	Hierarchical file systems and unknown file formats.

12. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

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May 20, 2003

  
DOV POPOVICI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100